



# **Standby Measurements Around the World**

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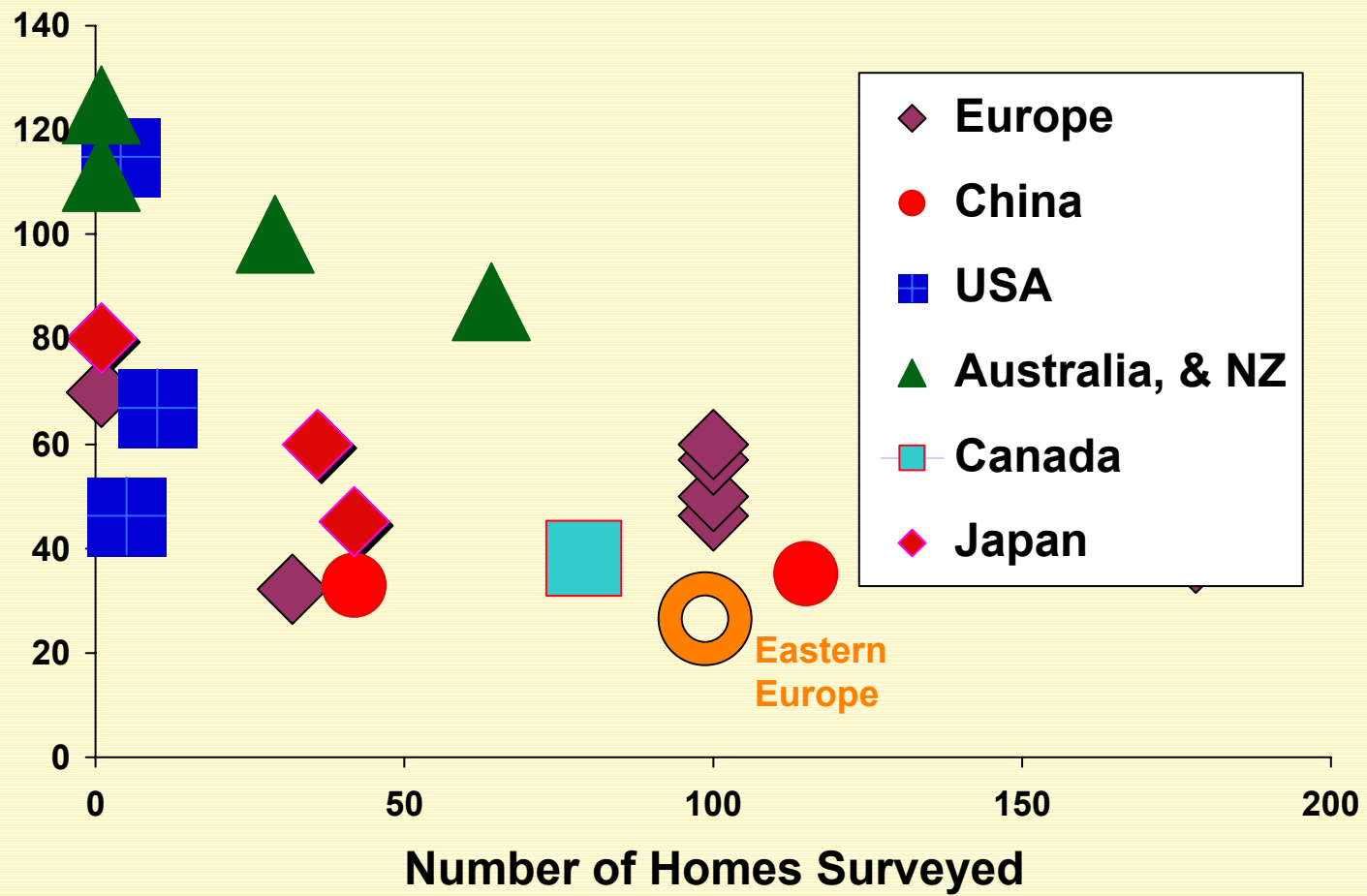
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# Estimation Approaches



- **Whole-building measurements**
  - Sum of all products in building
  - Observation of building's meter when all equipment is "off"
  - Adjustments for active and unplugged
- **Bottom-up estimates**
  - Average standby per device
  - Average saturations of devices

# Field Measurements in Homes



# Measurement Results



- **Essentially no measurements in the USA**
- **Small samples show wide variation**
- **Standby 50 - 80 W/home**
- **>20 standby devices/home**
- **We still don't know if standby is growing or shrinking**
  - Australia
  - Japan
  - Switzerland

# Commercial and Industrial Buildings



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# Trends



- Large reductions in some important products
- More products with standby
  - More gadgets
  - Hard-wired standby
  - Networked appliances
  - White goods
- Analog --> digital
  - Digital nearly always uses more power